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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/060,753	01/30/2002	Toshifumi Komatsu	2970.98US01	6971

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EXAMINER

GILLIAM, BARBARA LEE

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/060,793

Applicant(s)

MUKERJI ET AL.

Examiner

Barbara Gilliam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

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### DETAILED ACTION

1. Claims 1-22 are present.
2. As written, claim 12 is proper but dependent on claim 10. Applicant is encouraged to review the claim and decide if it was intended to depend on claim 11 instead.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Chia et al.
  - a. In US 5,677,110, Chia et al. teach a method of on-press development and printing of images using a lithographic printing plate precursor element comprising a lithographic hydrophilic printing plate substrate, a photohardenable photoresist and a layer of polymeric protective overcoat (abstract). Suitable substrates include metallic substrates and metallized plastic sheets such as polyethylene terephthalate (column 18, lines 7-15). The overcoat layer can be a polyvinyl alcohol layer (column 6, lines 12-18 & column 7, lines 51-67). The printing plate precursor meets the present limitations for the photosensitive laminate wherein the substrate meets the present limitations for

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the carrier layer, the overcoat layer meets the present limitations for the ink-receptive, radiation transmissive layer and the photoresist layer meets the present limitations for the photosensitive resist layer.

5. Claims 1-5, 7-10, 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoogmartens et al.

a. In US 5,922,506, Hoogmartens et al. teach a negative-working photosensitive imaging element comprising on a hydrophilic surface of a support in the order given, a hydrophobic photopolymerization layer contiguous to the hydrophilic surface of the support and comprising at least part of at least one unsaturated compound, a hydrophobic photosensitive layer contiguous to the polymerizable layer and comprising at least part of at least one hydrophobic thermoplastic polymer and at least one photoinitiator and optionally a receptor layer (claim 1). Examples of the thermoplastic polymers include polyvinyl chloride and copolymers (column 6, lines 50-51). Agents to improve the wetting an/or adjust the adhesion of the photopolymerizable composition may be added (column 7, lines 37-43 & column 8, lines 42-46). The support can comprise a polyethylene layer (column 10, lines 44-54) and comprise one or more hydrophilic layers such as layers of hardened polyvinyl alcohol (column 10, lines 25-36). The support meets the present limitations for the carrier layer and the hydrophilic layer coated thereon meets the present limitations for the membrane layer. The imaging element of Hoogmartens et al. may comprise a temporary protective layer on top of the photosensitive layer, which can comprise polyvinyl

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alcohol. The temporary layer can be removed before or after the photoexposure step (column 10, lines 62-67). Preferably the imaging element either comprises a receptor layer or a transfer layer and a receptor layer wherein the transfer layer is between the photosensitive composition and the receptor layer. Suitable receptor layers include transparent organic resins (column 11, lines 1-25). The temporary protective layer and the receptor layer meet the present limitations for the ink-receptive, radiation transmissive layer. Additionally the temporary protective layer meets the present limitations for the printable cover sheet.

6. Claims 1-3, 6-9, 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchikawa.

a. In US 5,637,426, Uchikawa teach a method for forming a resist pattern comprising the steps of placing a transparent mask substrate on an object coated with a resist, drawing a mask pattern directly on the transparent mask substrate with an ink jetter, exposing the resist to light with intervention of the mask pattern, peeling off the mask substrate and developing the resist (claim 1). Examples of the object used include a printed wiring board, a semiconductor substrate, and a transparent substrate such as glass or plastic usually employed for a liquid crystal display (column 2, line 66 – column 3, line 2). The object meets the present carrier layer limitations. Exemplary transparent mask substrates include a thin glass plate and plastic films such as made of polyethylene (column 3, lines 14-22), which meet the present limitations for the

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ink-receptive, radiation transmissive layer. The resist layer meets the present limitations for the same.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-10, 17, 19, 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Sounders et al. in view of Suzuki et al.

a. In US 6,235,449 B1, Sounders et al. teach a non-stick photoresist laminate comprising a substrate, a first film layer and a second film layer. The first film layer is a photoresist material, which is soluble or dispersible in water but will harden upon sufficient exposure to radiation so as to become substantially insoluble or non-dispersible. The second layer is of a material and thickness so that it substantially prevents sticking of the first film layer to other surfaces and may comprise a mixture of polyvinyl alcohol solution and polyvinyl acetate emulsion (claims 1-2). Suitable materials to be used for the first layer include the material of Suzuki et al. (U.S. 5,427,890), which comprises an acetal-modified polyvinyl alcohol (claim 1). The first layer and second layers of Sounders et al. meet the present limitations for the photosensitive resist layer

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and ink-receptive, radiation transmissive layer, respectively. The substrate may comprise a PET film (column 3, lines 57-67), which meets the present limitations for the carrier layer. The laminate may comprise a membrane support layer (column 5, lines 8-15), which meets the present limitations for the same.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchikawa view of Asano et al.

a. As pointed out in the corresponding rejection under 35 U.S.C. 102(b), Uchikawa (US 5,637,426) teach a method for forming a resist pattern comprising the steps of placing a transparent mask substrate on an object coated with a resist, drawing a mask pattern directly on the transparent mask substrate with an ink jetter, exposing the resist to light with intervention of the mask pattern, peeling off the mask substrate and developing the resist (claim 1). Exemplary transparent mask substrates include a thin glass plate and plastic films such as made of polyethylene (column 3, lines 14-22), which meet the present limitations for the ink-receptive, radiation transmissive layer. Uchikawa do not teach a transparent mask substrate comprising organic or inorganic

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particles however, based on the teachings of Asano et al. it would have been obvious to incorporate fillers such as calcium carbonate into the layer to reduce to cost (column 14, lines 55-67 & column 21, lines 33-46). The Examiner notes the fillers are used by Asano et al. to reduce the cost of the photoresist film layer however, since cost reduction is always a goal in the art, one of ordinary skill in the art would have been motivated to incorporate the carbon carbonate filler in the polyethylene transparent mask substrate of Uchikawa as well in order to reduce cost.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In US 2002/0037475 A1, Taguchi et al. teach a photosensitive resin laminate comprising at least a support, an adhesive layer and a photosensitive resin layer.

b. In US 6,413,700 B1, Hallman et al. teach a masked presensitized printing plate intermediates and method of imaging the same.

c. In US 6,143,470, Nguyen et al. teach digital laser imagable lithographic printing plates.

d. In US 6,140,005, Van Damme et al. teach imaging element and a method for producing a lithographic plate therewith.

e. In US 5,925,500, Yang et al. teach a method of making laser imaged printing plates utilizing ultraviolet absorbing layer.



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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Gilliam whose telephone number is 703-305-1330. The examiner can normally be reached on Monday through Thursday, 8:00 AM - 5:30 PM.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703-308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

b. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*Barbara Gilliam*

Barbara Gilliam  
Examiner  
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